

## A B S T R A C T

The invention relates to a connection device associated with an arm of an articulated three-  
5 dimensional measuring appliance, the device comprising a moving assembly and a fixed assembly, together with connection means for providing an electrical link between said two assemblies. In accordance with the invention, the moving assembly comprises first and second adjacent  
10 components on a common axis, the first component being constrained to rotate with the jointed end of the arm and being connected to the second component by a coupling system having successive dogs so that said second component is entrained in rotation only after said first  
15 component has turned through significantly more than one revolution in the same direction, and the connection means comprise facing contact members carried respectively by the fixed assembly and by the second component, arranged to provide a continuous electrical  
20 link in normal operation and a link that is restricted to a short angular range of rotation once the second component is entrained in rotation by the first component.